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**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

NU-631XX

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

10/586713

INTERNATIONAL APPLICATION NO.
PCT/US2005/002226INTERNATIONAL FILING DATE
20 January 2005PRIORITY DATE CLAIMED
20 January 2004

TITLE OF INVENTION

ENHANCED DETECTION OF ACOUSTO-PHOTONIC EMISSIONS IN OPTICALLY TURBID MEDIA USING A PHOTO-REFRACTIVE CRYSTAL-BASED DETECTIONS SYSTEM

APPLICANT(S) FOR DO/EO/US

Charles A. Dimarzio, Ronald A. Roy, Todd W. Murray, Florian J. Blonigen, Luis A. Nieva, Lei Sui, Gopi Maguluri

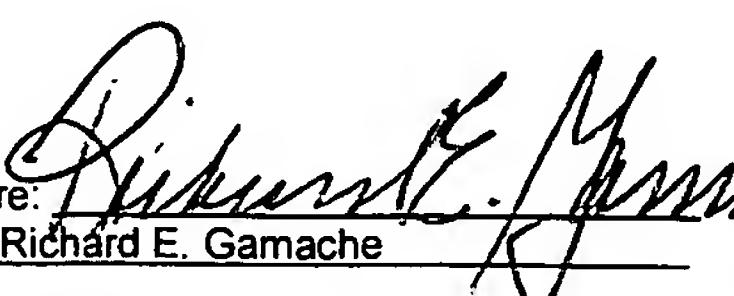
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. This express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. The US has been elected (Article 31).
5. A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. is attached hereto (required only if not communicated by the International Bureau).
 - b. has been communicated by the International Bureau.
 - c. is not required, as the application was filed in the United States Receiving Office (RO/US).
6. An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. is attached hereto.
 - b. had been previously submitted under 35 U.S.C. 154(d)(4).
7. Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. are attached herewith (required only if not communicated by the International Bureau).
 - b. have been communicated by the International Bureau.
 - c. have not been made; however, the time limit for making such amendments has NOT expired.
 - d. have not been made and will not be made.
8. An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. A preliminary amendment.
14. An Application Data Sheet under 37 CFR 1.76.
15. A substitute specification.
16. A power of attorney and/or change of address letter.
17. A computer readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821-1.825.
18. A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4) Express Mail No. _____
20. Other items or information: _____

EV 559914965 US

U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/586713	INTERNATIONAL APPLICATION NO PCT/US2005/002226	ATTORNEY'S DOCKET NUMBER NU-631XX
The following fees have been submitted:		CALCULATIONS PTO USE ONLY
21. <input checked="" type="checkbox"/> Basic national fee.....		\$300.00
22. <input checked="" type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)		\$100.00
All other situations		\$200.00
23. <input type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority		\$100.00
International Search Report prepared and provided to the Office.....		\$400.00
All other situations.....		\$500.00
TOTAL OF 21, 22 and 23 =		\$600.00
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250.00 for each additional 50 sheets of paper or fraction thereof.		N/A
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)
- 100 =	/ 50 =	X \$250.00
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).		\$N/A
CLAIMS	NUMBER FILED	NUMBER EXTRA
Total claims	18 - 20 =	0
Independent claims	2 - 3 =	0
MULTIPLE DEPENDENT CLAIM(S) (if applicable)		+ \$360.00
TOTAL OF ABOVE CALCULATIONS =		\$600.00
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.		\$300.00
SUBTOTAL =		\$300.00
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(l)). +		\$N/A
TOTAL NATIONAL FEE =		\$300.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property		+
TOTAL FEES ENCLOSED =		\$
		Amount to be Refunded: \$0
		Amount to be Charged: \$300.00
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$300.00 to cover the above fees, except assignment recordation, is enclosed. A check in the amount of \$_____ is enclosed for the assignment recordation fee.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$_____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Deposit Account No. <u>23-0804</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>		
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.		
SEND ALL CORRESPONDENCE TO: [X] Customer Number 00207		which is associated with the Law Firm of: WEINGARTEN, SCHURGIN, GAGNEBIN & LEBOVICI LLP Ten Post Office Square Boston, Massachusetts 02109 United States Telephone: (617) 542-2290 Fax: (617) 451-0313
Attorney Signature:  Attorney Name: Richard E. Gamache		Date: July 20, 2006 Registration No: 39,196